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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,484	07/22/2003	Peter T. Tuite	1342/9	9124

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EXAMINER

PALABRICA, RICARDO J

ART UNIT	PAPER NUMBER
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3663

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,484

Applicant(s)

TUI TE ET AL.

Examiner

Rick Palabrica

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-87 is/are pending in the application.
- 4a) Of the above claim(s) 1-67 and 79 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 68-78 and 80-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/5/04; 2/26/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/5/04; 2/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election with traverse of Group II (Product), species D (Cylindrical components), neoprene seal, and circular container cross section, in the replies filed on 11/26/04 and 11/21/05, is acknowledged. The traversal is on the ground(s) that the Examiner has not shown that the two criteria for restriction have been met: a) inventions are independent or distinct; and b) a serious burden exists without the restriction. This is not found persuasive. As to criterion a), the Examiner has shown in section 1 of the 10/26/04 Office action why the three groups of inventions are distinct based on a showing how the requirements of MPEP 806.05(f), MPEP 806.05(h), MPEP 806.05(d), and MPEP 806.05(i) are met. As to criterion b), there exists a serious burden because each one of the plurality of disclosed groups and species will require a separate search and the individual searches will not be co-extensive.

The requirement is still deemed proper and is therefore made FINAL.

Based on Applicant's election, claims 68-78 and 80-87 read on the elected invention. Claims 1-67 and 79 are withdrawn from consideration being directed to the non-elected invention.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "at least one secondary shield" (e.g., see claim 84) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 78 and 80 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

There is neither an adequate description nor enabling disclosure as to what is all encompassed by the term/phrase "portion of the container" or "portion of the reactor pressure vessel head." For example, what portion (e.g., 10%, 50%, etc.) or which portion (top, bottom, side, etc.) is being referred to in the claims.

4. Claims 68-85 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 68 recites the limitation "the another component" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claims 78 and 80 are vague and indefinite, and their metes and bounds cannot be determined because it is unclear what is all encompassed by the term "portion".

Claims 81 and 84 recite the limitation "the containment structure" in lines 3 and 7, respectively. There are insufficient antecedent bases for this limitation in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 68, 69, 86, and 87 are rejected under 35 U.S.C. 102(b) as being anticipated by any one of Wedellsborg (U.S. 4,767,593) or Malandra et al. (U.S. 5,225,150), or Griffiths et al. (U.S. 6,087,546), or under 35 U.S.C. 102(a) as being anticipated by Aoki et al. (US 2002/0186806 A1).

Wedellsborg discloses a multiple shell nuclear pressure vessel (see Figs. 1-5 and Abstract). Applicant claim language reads on Wedellsborg as follows: a) "container reads on pressure vessel; b) "bottom component" reads on the hemispherical bottom head of any one of the three nested pressure vessels 12, 14 and 18 (see also col. 3, lines 45+); c) "at least one cylindrical component" reads on any one of the cylindrical shells of nested pressure vessels 12, 14 and 18. Note that the claims do not preclude the bottom component from being connected to or integral with the cylindrical component.

As to claim 68, Wedellsborg's pressure vessel inherently includes control rods attached to the pressure vessel head 64 when used with a nuclear reactor, e.g., a PWR. Any one of the three cylindrical components is capable of at least partial containing at least one control rod attached to the vessel head, e.g., partially enclosing said rod. Any

one of the three cylindrical components is capable of passing through an access port of the reactor containment for either installing or removing the pressure vessel, and for attachment to another component inside said reactor containment, e.g., reactor coolant pump.

As to claim 69, Applicant's claim language, "top component" reads on any one of Wedellsborg's inlet nozzles at the top of the vessel (see Fig. 1).

Griffiths et al. disclose a package for a decommissioned nuclear pressure vessel (see Figs. 1-8 and Abstract). Applicant claim language reads on Griffiths et al. as follows: a) "container reads on transport container 24; b) "bottom component" reads on lower cover plate 42; c) "at least one cylindrical component" reads on the cylindrical wall of container 24; d) "top component" reads on top plate 40. Note that the claims do not preclude the bottom component from being connected to or integral with the cylindrical component.

Applicant has not defined the dimensions of the at least one control rod, and absent such definition Griffiths et al.'s package is capable of being sized to accommodate a pressure vessel head with at least one control rod attached.

Malandra et al. discloses an integrated head package for a nuclear pressure vessel (e.g. see Fig. 3 and Abstract). Applicant claim language reads on Malandra et al. as follows: a) "container reads on the combination of shroud assembly 70 and support plate 62; b) "bottom component" reads on thicker shroud bottom 72; c) "at least one

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cylindrical component” reads on top shroud 74 (see also col. 4, lines 44+). Note that the claims do not preclude the bottom component from being connected to or integral with the cylindrical component.

As to claim 69, Applicant’s claim language, “top component” reads on Malandra et al.’s plate 62 (see Fig. 3).

Aoki et al. disclose a system for transporting a nuclear reactor pressure from within the reactor containment (e.g. see Fig. 8). Applicant’s claim language reads on Aoki et al. as follows: a) “container” reads on the combination of shield 60 and elements 63 and 65a; b) “bottom component” reads on bottom cover 60b; c) “at least one cylindrical component” reads on cylindrical wall 61; d) “top component” reads on top cover 60a. Note that the claims do not preclude the bottom component from being connected to or integral with the cylindrical component.

The claims are replete with statements that are either essentially method limitations or statements of intended or desired use. For example, “for a nuclear reactor pressure vessel head with attached control rods”, “configured to pass through an existing access to a structure ...”, “adapted for attaching the components to each other,” etc. These clauses, as well as other statements of intended use do not serve to patently distinguish the claimed structure over that of the reference, as long as the structure of the cited references is capable of performing the intended use. See MPEP 2111-2115.

See also MPEP 2114 that states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531.

[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525,1528.

As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Any one of the systems in the cited references is capable of being used in the same manner and for the intended or desired use as the claimed invention. It is sufficient to show that such capability exists, which is the case for the cited references.

6. Claims 70, 71, 72, 76, 78, 81, 82, 83, 84, 85 are rejected under 35 U.S.C. 102(b) as being anticipated by Wedellsborg.

As to claims 70-72, Wedellsborg discloses the nested cylindrical components each having a flanges (e.g., see elements 82, 40 in Fig. 2 and capable of attaching the components to each other, capable of providing a seal between flanges for attaching a first to a second cylindrical component (see also, col. 5, lines 40+).

As to claim 76, Wedellsborg's flanges 28 and 29 that are adapted for absorbing shocks because of their attachment to bellows 36 and 34 (see Fig. 2 and col. 7, lines 9+).

As to claim 83, Wedellsborg's bottom component inherently includes bosses, e.g., for in-core instrumentation tubes, capable of attachment to structures on the pressure vessel head.

As to claims 84 and 85, Wedellsborg's pressure vessel inherently includes a core barrel or a core shroud for a nuclear reactor, e.g., a PWR or a BWR. Applicant's claim language, "secondary shield" reads on "core barrel" (for a PWR) or "core shroud" (for a BWR) that acts as a radiation shield. This core barrel is cylindrical.

7. Claims 77, 78, 80 and 81 are rejected under 35 U.S.C. 102(b) as being anticipated by Malandra et al.

As to claims 77 and 78, see Fig 3 and col. 4, lines 58+.

As to claim 80, note from 3 that part of the pressure vessel head 50 is within the cylindrical component 74.

8. Claims 77, 78, 80, 81, 82, 84 and 85 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffiths et al.

As to claims 84 and 85, Griffiths et al. disclose supplemental steel shielding 26 (see Fig. 8 and col. 4, lines 49+).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 70, 71, and 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffiths et al. in view of either one of Peters et al. (U.S. 6,489,623 B1) or Botzem et al. (U.S. 4,456,827). Griffiths et al. disclose the Applicant's claims except for the flange construction for the components and use of a neoprene gasket between components.

Griffiths et al., who teach a shipping container for a reactor pressure vessel wherein the upper cover plate 40 is welded to the cylindrical body of the container 24, has been discussed above.

Either one of Peters et al. or Botzem et al. teach a shipping container for radioactive materials wherein the lid of the container is attached to the body by a sealed, flanged configuration (e.g., see Fig. 1 and Abstract of Peters et al. or Fig. 2 and Abstract of Botzem et al.)

As to claim 75, Peters et al. teach the use of silicon rubber gaskets and neoprene is a well-known alternative to silicon rubber. Also, Applicant himself admits that the selection of sealing materials is within the skill of artisans (see paragraph 0039). MPEP 2129 [R-1] states:

"When applicant states that something is prior art, it is taken as being available as prior art against the claims. Admitted prior art can be used in obviousness rejections."

One having ordinary skill in the art at the time of the invention would have recognized that the primary and secondary references are in the same field of

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endeavor, i.e., shipment of radioactive nuclear materials. This artisan would also have recognized that a configuration of a pre-fabricated lid cover that is gasket-sealed to the body of the container is advantageous over a lid-welded-to-the-body configuration because of reduced assembly time and thereby reducing radiation dose to workers.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by Griffiths et al., to used a flanged construction for the top plate and the cylindrical component and have the two components sealed by a gasket such as neoprene, to gain the advantages thereof (i.e., lower radiation dose on workers), because such modification is no more than the use of well known expedients for sealing shipping containers within the nuclear art.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References G-I further illustrate prior art.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 571-272-6880. The examiner can normally be reached on 6:30-5:00, Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJP
December 8, 2005

A handwritten signature in black ink, appearing to read "R. Palabrica". The signature is written in a cursive style with a long, sweeping tail on the final letter.